

Application No. 10/765,547

Response to Restriction Requirement dated: August 2, 2006

In Reply to Restriction Requirement dated: July 11, 2006

AMENDMENTS TO THE CLAIMS

Replace the claims with the following rewritten listing:

1. (Original) A server-client network system for a genotyping analysis on a target sample, the server-client network system comprising:
a server including databases required for the genotyping analysis and providing the databases to a client; and
the client receiving the results of a biochip test on the target sample using a biochip and performing the genotyping analysis on the target sample with reference to the databases provided from the server.
2. (Original) The server-client network system of claim 1, wherein the databases comprise:
a biochip identifier and layout database storing information on the identifier and layout of the biochip;
an analysis algorithm database storing algorithms required for genotyping analysis; and
a quality control criteria database.
3. (Original) The server-client network system of claim 1, wherein the databases stored in the server are built up from statistical data for the results of tests on a number of patient and reference samples using the biochip.
4. (Original) The server-client network system of claim 2, wherein the databases stored in the server are built up from statistical data for the results of tests on a number of patient and reference samples using the biochip.
5. (Original) The server-client network system of claim 1, wherein the client comprises:
an optical scanning system through which the results of the biochip test on the target sample are received; and

YPL-0077
SI-18700-US

Page 2 of 7.

Application No. 10/765,547

Response to Restriction Requirement dated: August 2, 2006

In Reply to Restriction Requirement dated: July 11, 2006

an identifier recognizer which recognizes the identifier of the biochip.

6. (Original) The server-client network system of claim 1, wherein the client comprises an engine for performing logical functions including:

a function of detecting the identifier of the biochip;

a function of selecting databases corresponding to the identifier of the biochip;

a function of selecting a database position mode from between a server mode and a local replication mode;

a function of downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client; and

a function of performing a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

7. (Original) The server-client network system of claim 2, wherein the client comprises an engine for performing logical functions including:

a function of detecting the identifier of the biochip;

a function of selecting databases corresponding to the identifier of the biochip;

a function of selecting a database position mode from between a server mode and a local replication mode;

a function of downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client; and

a function of performing a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

Application No. 10/763,547

Response to Restriction Requirement dated: August 2, 2006

In Reply to Restriction Requirement dated: July 11, 2006

8. (Original) The server-client network system of claim 7, wherein the function of performing the genotyping analysis on the target sample comprises:

- a function of reading the biochip identifier and layout database;
- a function of reading the results of the test on the target sample input via the optical scanning system;
- a function of linking the results of the test on the target sample to spot position information stored in the biochip identifier and layout database;
- a function of reading the quality control criteria database;
- a function of screening out failed spots from among the results of the test based on the quality control criteria database;
- a function of reading the analysis algorithm database;
- a function of performing a genotyping analysis on the target sample with reference to the analysis algorithm database; and
- a function of storing and/or displaying the results of the genotyping analysis.

9. (Currently Amended) A computer readable medium for a server-client network system for genotyping analysis, the computer readable medium having computer executable instructions for a client to perform logical operations comprising:

- receiving databases required for a genotyping analysis from a server and receiving results of a biochip test on a target sample; and
- performing a genotyping analysis on thea target sample using the results of thea biochip test on the target sample with reference to the databases.

10. (Original) The computer readable medium of claim 9, wherein the databases comprise:

- a biochip identifier and layout database storing information on the identifier and layout of the biochip;
- an analysis algorithm database storing algorithms required for genotyping analysis; and
- a quality control criteria database.

Application No. 10/765,547

Response to Restriction Requirement dated: August 2, 2006

In Reply to Restriction Requirement dated: July 11, 2006

11. (Original) The computer readable medium of claim 10, wherein the step of receiving the databases comprises logical steps including:

- detecting the identifier of the biochip;
- selecting databases corresponding to the identifier of the biochip;
- selecting a database position mode from between a server mode and a local replication mode; and
- downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client, and

the step of performing the genotyping analysis comprises logical steps including:

- reading the biochip identifier and layout database from among the databases stored in the server if the server mode is selected or reading a biochip identifier and layout database from among the downloaded databases if the local replication mode is selected;
- reading the results of the biochip test on the target sample input via an optical scanning system;
- linking the results of the biochip test on the target sample to spot position information stored in the biochip identifier and layout database;
- reading the quality control criteria database;
- screening out failed spots from among the results of the biochip test based on the quality control criteria database;
- reading the analysis algorithm database;
- performing a genotyping analysis on the target sample based on the analysis algorithm database; and
- storing and/or displaying the results of the genotyping analysis.